

WHAT IS CLAIMED IS:

1. A high-carbon steel pipe having superior cold  
workability and induction hardenability, wherein said steel  
5 pipe has a composition containing, by mass %,

C: 0.3 to 0.8%,

Si: not more than 2%, and

Mn: not more than 3%,

the balance consisting of Fe and inevitable impurities, and  
10 said steel pipe has a structure with the grain size of  
cementite being not greater than 1.0  $\mu\text{m}$  at any positions  
including a seam.

2. A high-carbon steel pipe according to Claim 1,  
15 wherein said steel pipe further contains in addition to said  
composition, by mass %, one or more selected from among Cr:  
not more than 2%, Mo: not more than 2%, W: not more than 2%,  
Ni: not more than 2%, Cu: not more than 2%, and B: not more  
than 0.01%.

20

3. A high-carbon steel pipe according to Claim 1 or 2,  
wherein said steel pipe further contains in addition to said  
composition, by mass %, one or more selected from among Ti:  
not more than 1%, Nb: not more than 1%, and V: not more than

25 1%.

4. A high-carbon steel pipe according to any one of Claims 1 to 3, wherein an r-value is not less than 1.2 in the longitudinal direction of said steel pipe at any positions including the seam.

5. A method of producing a high-carbon steel pipe having superior cold workability and induction hardenability, said method comprising the steps of:

10 preparing a base steel pipe having a composition containing, by mass %,

C: 0.3 to 0.8%,

Si: not more than 2%, and

Mn: not more than 3%; and

15 carrying out reducing rolling on said base steel pipe at least in the temperature range of ( $A_{c1}$  transformation point - 50°C) to  $A_{c1}$  transformation point with an accumulated reduction in diameter of not less than 30%.

20 6. A method of producing a high-carbon steel pipe according to Claim 5, wherein said base steel pipe is a seam welded steel pipe produced by the steps of slitting a steel strip into a predetermined width, removing droops in slit surfaces, and joining the slit surfaces to each other by

25 electrical resistance seam welding.